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Original.

A NOVEL METHOD OF OPERATING FOR MAJOR OPERATIONS WITHIN THE NASAL CAVITIES.*

BY CARL SEILER, M. D.

* Read before the Philadelphia County Medical Society, Sept. 25, 1895.

For a number of years past, in fact ever since the introduction of cocaine as a local anesthetic in intranasal surgery, I have avoided as much as possible the employment of general anesthesia as cumbersome and unpleasant to both the patient and the operator; and in the majority of cases requiring but slight surgical interference and the performance of the minor operations, such as galvano-cautery, removal of polypi or ecchondroses, extirpation of the pharyngeal tonsil, and even straightening of the nasal septum, cocaine properly applied for a sufficient length of time before the operation I have found to answer all purposes. This local anesthesia has the inestimable advantage in these by no means simple or easily performed operations of securing for the operator the co-operation of the patient by not rendering him unconscious; the patient, thus being enabled to remain in the upright position, the usual one for examination, throughout the operation, can dispose easily and without inconvenience to the operator of any flow of blood, so that the operation need not be interrupted by any slight hemorrhage; and, what is of even greater importance, the topographical position of the parts in relation to the body of the patient, to the operator, and to the source of illumination remain the same as in ordinary examination of the nasal cavities, the knowledge of which relative positions, by long practice, has become, so to speak, automatic on the part of the operator, so that they are not consciously thought of by him during the operative manipulations if unaltered.

In those cases, however, in which the major operations within the nasal and oral cavities, such as the removal of fibroid polypi in the postnasal or naso-pharyngeal cavity, of sarcomatous tumors, or of benign tumors invading the adjacent cavities, of necrosed bone in the posterior-nasal chambers, the extractions of large rhinoliths or impacted and incrusted foreign bodies, etc., are necessary, cocaine or any other purely local anesthetic is not applicable, because the site of operation cannot be reached with the cocaine solution, and because the extent of surface to be anesthetized is either too extensive or altogether unknown to the operator before the operation, and general anesthesia must of necessity be resorted to in order to keep the patient submissive and quiet, besides rendering the surgical procedure painless; under these circumstances it becomes necessary to place the patient in a recumbent position, which at once puts the operator at a disadvantage, because it in the first place

alters the topographical relation of the parts to the operator, puts adequate illumination of the nasal cavities out of the question altogether or makes it extremely difficult, and, what constitutes the greatest objection, allows the blood to flow into the larynx and pharynx unperceived by the operator, and in such quantities as to endanger the life of the patient by suffocation if he is placed in the usual position—either on his back or on his side. This latter difficulty is usually obviated by plugging the post-nasal cavity, prior to the administration of the general anesthetic, if the operation is to be undertaken in either of the anterior nasal chambers, or by a preliminary tracheotomy and plugging of the superior laryngeal cavity, if the naso-pharyngeal cavity has to be invaded during the operation, thus making it much more tedious and inconvenient to both operator and patient in the first instance, and in the second increasing the risk to life to a very great extent.

For a number of years past I have adopted a method which obviates the difficulty of blood running in the larynx and pharynx, and so does away with the necessity of preliminary tracheotomy or plugging of the posterior nares, and which has proved so efficient in a large number of instances that I feel justified in making public mention of it now that it has been thoroughly tested.

This method is very simple, and consists in placing the patient, after thorough anesthesia, upon the operating table, in a ventral recumbent position, with the head projecting, face downward, over the edge of the table.

The head is supported in a horizontal position by the hand of an assistant, and by placing a bandage around the forehead, the loose ends of which are secured to a band around the waist of the patient, as better still to a rigid support above the head of the table. In this position the flow of blood occasioned by the operation finds vent through the nostrils and mouth, and none of it finds its way into the larynx.

Of course, the topographical relation of the parts to the position of the patient is an entirely different one from that we are accustomed to in the ordinary upright position, but not much more so than when the patient is in the prone dorsal as lateral position, and with a little practice on the part of the operator this difficulty is soon overcome.

In order to obtain sufficient illumination an ordinary looking-glass or a concave reflector is placed upon the floor beneath the patient and secured in such a position that it will reflect light from any convenient source, a window or gas jet, into the nasal cavities. As a rule, in such operations I depend upon the sense of touch rather than upon that of sight, but if it becomes absolutely necessary to see any particular portion of the nasal chambers, which can be seen during the operation, I adopt the very simple expedient of lying upon my back under the table, which brings me again into the same relation to the patient's nasal cavities that I was in when he was sitting conscious on the examining-chair, and thus the topographical relations are restored, under somewhat inconvenient circumstances it is true, to the normal and accustomed one.

I have performed of these major intra-nasal operations with the patient in the position described, and have been greatly pleased with not only the freedom of motion which it gives to the operator for his manipulations, but also with the ease of mind and freedom from anxiety, lest blood should choke the patient in spite of all precautions to prevent such an accident, which have to be instituted in the old method of the dorsal recumbent position, even with the head extending beyond the edge of the table and hanging down.

A PRACTICAL STUDY OF THE BLOOD AND THE CIRCULATION. WITH A HISTORICAL REVIEW OF THE SUBJECT AND ITS BRIEF CONSIDERATION FROM THE STANDPOINT OF ITS CHEMICAL COMPOSITION, ANATOMICAL STRUC-

TURE, AND PHYSIOLOGY; INCLUDING CLINICAL STUDIES, AND EXPERIMENTAL RESEARCH ON THE LOWER ANIMAL.

BY THOMAS H. MANLEY, M. D., NEW YORK.

Continued from last number.

PART IX.

ON THE CAPILLARIES AND THE BLOOD CORPUSCLES.

Medicine in the nineteenth century has made stupendous strides in the direction of experimental research, and by utilizing those discoveries and inventions which enable us to investigate living phenomena. Lavoisier, the famous French chemist guillotined in 1791, had placed by his stupendous labors before his tragic end the science of chemistry on an enduring basis, making its study available in analyzing living phenomena, in determining the changes occurring in the fluids and solids in the body in health, and in enabling us to administer remedies on a scientific basis. This epoch marked the beginning of the end of empiricism.

By the application of the physics of acoustics, the study of sounds and movements, Laennec opened the way to a ready and accurate recognition of many pulmonary and cardiac disturbances and lesions. The modern microscope enabled Virchow to lay the solid groundwork of modern cellular pathology. Without this instrument his efforts would have been futile; and, without those staining fluids of such intensity in action, as the aniline dyes, but lately elaborated, Koch could not have discovered the bacterium of tuberculosis, nor would we now have that vast field of bacteriological science open to us. The experiments and researches of the late Louis Pasteur, the chemist, have quite totally annihilated those views of pathology which, until his time, were taught with all the force of dogma. His remarkable brochure on fermentation contained the germ of antisepsis, through which Sir Joseph Lister was inspired, when he commenced that brilliant series of experiments so soon not only to revolutionize the domain of surgery, and carry the most radical reforms into medicine, but even to threaten the existence of polypharmacy.

It was regarded a great gain when chemistry enabled us to recognize certain diseases of the kidneys and forecast events in their course by its aid through examination of the urine. This was the only excretion which chemistry, with any degree of accuracy enabled us to examine. But now we know that chemistry, as a sole reliance in urinary analysis, is not to be depended on, and is practically pushed aside by the microscope, which discloses the most remarkable and extraordinary revelations in urinary examination, not only pointing with unerring certainty to morbid tissue changes in the kidney, but also casting a flood of light on the state of the mucous passages from the urethra upward.

Now, all the secretions may be studied with advantage and precision, and no doubt in the near future the incessant and laborious efforts of the immense army of investigators in the field will far advance this branch of biological science, and show that to the microscope we must look for definite knowledge in the many problems which confront us in the prognosis and treatment of disease.

But we have made a step further and extended our investigations into the very citadel of life itself.

The dead blood and the living blood, that in a state of decomposition and that in motion, with all the characteristics of life, has finally come under the observation of the investigator; not the fluid en masse so much as its finer elements. Here Norris, Heymen, Hoyer, Eberth, Strickler, Laveran and others have broken new ground for others to cultivate, and no doubt in the near future we may expect to find medical literature enriched by a wealth of material from this source.

Hematology is one of the fundamental studies of pathology. This is a vast one, with room for all to work. Hayem, in the preface to his imposing volume, complains that others

have been appropriating his work; and Norris, too, charges Bizzozoro with a similar fault; but the probabilities are that very much which each of these authors claim as their exclusive property was well known before their time, and, after all, no plagiary was committed. We give Lister the sole credit for discovering antiseptics; but, in Hunter's work on the blood and its changes under inflammation, he says he "used local treatment of the parts, stimulating such antiseptic medicines, as turpentine, the balsams and essential oils." He also speaks of the special characters of these pus-corpuscles coming from one of a vigorous constitution; while we find a modern distinguished author claim the discovery as his own. (Dr. Carl Heitzman, A System of Pathology, p. 217.)

It is, therefore, evident that while much of what is being done in hematology is essentially original, not a little of it includes the views of former writers, presented in a new dress.

In my own limited work my path has been lighted from many sources, mostly from physiological writers, for it is only of late that the subject of corpuscular elements of the blood have been studied from their practical bearing on disease.

My aim at the outset was with the view of studying the effects of fracture on the movement of the blood current; but the marvelous phenomena which opened up to me after the blood tide was fully under my view, were so pregnant with suggestions that I decided to extend it to other traumatic and pathologic states.

After patient and repeated examinations of the field of the living corpuscles, it appeared to me that in order to rationally grasp the subject of hematology and derive the greatest profit from its study, it would be necessary to deal with it seriatim in the normal state, observing, first, the arterial terminals, next the capillaries, and, lastly, the venous rootlets; then finally put a brake on the afferent vessels, slacken the current and study the corpuscles.

And, it may be said here, that under the general head of capillaries, reduced to three divisions, all the finer vessels will be grouped.

First, the arterial capillaries; second, the terminal capillaries, and finally the venous capillaries.

The word "capillary" in this instance is an important one. It is derived from the latin word capillus, a hair; but the finest hair is very much thicker than a terminal capillary, and, moreover, the vessel bears no resemblance to a hair in any particular. The capillary system is a reticulum, which, when carrying blood globules, is apparent to the eye, but when suddenly emptied vanishes from view.

We can only recognize it clearly in the living organism; for, after death, or after a tissue is removed from the body, it has quite disappeared. Anything like a perfect injection of it, with a staining fluid, which will enable us to issolate it distinctly under the microscope is quite impossible.

Riolanus, the famous French anatomist and contemporary of Harvey, taught that the arterial and venous currents were continuous through an intermediate set of vessels, while Harvey himself, who had been the first to describe the mechanism of the circulation, denied this, believing that the arteries discharged the blood directly into the tissues, from which it was taken up by the venous rootlets. Neither one was able to convince the other by an ocular demonstration, because the means of making this were absent.

The minute capillary tracts are said to be made up of endothelial corpuscles, or are protoplasmic tubes. They evidently are flat in form and are formed by continuous rows of long, tapering spindles, so exceedingly delicate as to permit of their fluid contents to pass out and other elements to enter.

The vitalized substances of which they are formed, however, possess great tensive resistance, else the blood corpuscles, as they rush onward, must burst through the walls. The force of the arterial impulse, however, is here broken, and the corpuscles now, though speeding on, are comparatively uniform in their movement. The average diameter of a human red corpuscle is one three-thousandths of an inch, and some of

the finer corpuscles will not permit more than two or three abreast to move through them. This would indicate that the diameter of a corpuscle is exceedingly narrow. It is probable that there are other fine channels in the tissues for the colorless juices which escape detection, as they are without power of refracting light, something similar to the intercorpuscular tracts of the corneal corpuscles. Because we have not seen them is no good reason that they do not exist. Physiologists speak of canaliculi. May not the capillaries possess, unseen as yet, analogous strictures?

(To be continued.)

Society Reports.

CINCINNATI OBSTETRICAL SOCIETY, JUNE, 1895.

(Continued from Last Number.)

DISCUSSION OF DR. JOHNSTON'S PAPER.

Dr. E. W. Mitchell:

Mr. President:—The general practitioner will see a dozen recoveries with medicinal treatment to one needing operation; while the specialist will see cases from rather a different standpoint. So it seems to me it is well to compare notes. It is a great mistake to make operation a durnier resort because the prognosis is extremely grave when the patient is in extreme cholemia; the blood change is so pronounced that the patient will die often in spite of the relief of the obstruction. Because of the amount of change in the blood the patient cannot rally. And so we want to sort of balance the two extremes. And I think Dr. Hall has pretty well defined the cases which need operation. Certainly it is a mistake to let a case go on month after month, or year after year. But some cases will carry a gall stone, too large to cause obstruction, many years, and may carry it to their death without any bad results. Often we find gall stones on autopsy which have caused no trouble during life. I have here some specimens. These fragments represent two mulberry calculi. You can see by putting them together they would make two very large stones. They were removed from a lady 62 years of age. The patient had symptoms of gall stone several months before coming here, and was, while here, extremely prostrated for awhile, having several attacks. She had some hectic symptoms, indicating some suppuration. As soon as the patient could be put in good condition for operation she went to Christ Hospital as a private patient, and I removed these stones. The gall bladder was firmly adherent to the anterior abdominal wall. It was a little difficult to grasp the stones and remove them. One was fitted into the neck of the gall bladder. The patient made an uninterrupted recovery. The fistula healed before she left my care. But I have recently had a letter from her stating she is suffering again from similar symptoms. So possibly she has a return of calculi; or it may be she is now developing malignant disease. It was impossible at that time, of course, to examine the liver or the ducts by the finger externally, as the gall bladder was adherent all around. There is probably another stone. One of my friends who saw the case just prior to the operation was impressed that it was a case of malignant disease and not of gall stone.

These specimens were from a patient about 65 years of age. In the first case the diagnosis was quite easy, but in this case the diagnosis was obscure. The patient had a cancer of the mammary gland (carcinoma) removed. She made a prompt recovery and had no evidence whatever of return, no enlargement of the auxiliary glands. Her health was good up to four or five months prior to the operation. For four or five months she complained of rheumatic pains, suffered a good deal from lumbago without any definite symptoms, but never complained of any pain in

the epigastrium nor in the region of the gall bladder. She had a fair appetite and digestion, but was not so well as usually. A few weeks before the operation she was somewhat jaundiced, but there was no pain or tenderness over the region of the gall bladder or the epigastrium. Of course the first suspicion would be that there was a malignant disease developing in the liver. This jaundice very gradually increased with the progressive loss of strength and failure of appetite, until finally she took to her bed. I could then make out a little enlargement. I thought of the gall bladder, and asked Dr. Reamy to see the case with me. He was inclined to think there was a possible obstruction of the gall ducts; yet there was a possibility of cancer and of catarrhal jaundice. The question of operation was talked over at our first meeting, but was not proposed to the family until several days afterward; and it was proposed then, since the patient was progressively losing flesh, that an exploratory incision should be made. It was perhaps a week or two before we could obtain the consent of the friends to this, especially since we felt it our duty to state plainly to them that it was possibly a case of malignant disease and an operation would not benefit her. They finally consented to an operation. This case, I think, is a good illustration of the mistake of delay. During the days we were waiting to get the consent of the friends the jaundice increased considerably. The urine was full of bile, and the stools were clay colored. Upon operation we removed these stones. One of them was pushed back from the upper end of the common duct without any great difficulty. The patient rallied well from the operation, and did well as far as the operation was concerned, but after some two weeks died from exhaustion and probably from the condition of cholemia. The case, I think, is worthy of reporting in this connection because it illustrates the mistake of putting off the operation so long. I believe if the patient had been operated upon as soon as jaundice developed her life might have been prolonged. After death we were allowed only to make such examination as we could through the incision. There had been, after the operation, decided darkening of the stools, showing some, perhaps considerable, bile got through into the intestinal canal. The liver was but slightly enlarged and there was no evidence, so far as we could determine by palpation, of any malignant disease whatever in the liver.

Dr. Palmer said: The remarks of the last speaker have induced me to speak on this subject. I have never had a case under care requiring any surgical interference. That it is required at times all must admit, but all surgical interference ought to be considered only after failures with medicinal agents, or only in very bad cases seen quite late. Many, if not most, patients seen at all early in the history of the affection are entitled to a judicious use of certain medicines, as Carlsbad waters at Carlsbad springs, if they can afford it, or Carlsbad salts, obtained in this country, or the salicylate of sodium, or the phosphate of sodium.

There can be no question of the usefulness of Carlsbad in biliary calculi. Salicylate and phosphate of sodium have served me useful purposes. I am disposed to think that they rank much in the order named.

All cases, unless very bad, so bad as to demand prompt surgical procedures, may be, probably will be, benefited by these remedies, and in their use months may be profitably consumed.

Dr. Johnston asks how these remedies act. Probably by increasing the quantity, and altering the quality of the biliary secretion, dissolving the biliary calculi.

Dr. Reed:

Mr. President:—I think I am acquainted with the case referred to by Dr. Zinke. The case is one I was called to quite unexpectedly, and without any knowledge that the doctor had been previously connected with it I made a diagnosis of recurrent appendicitis. The pain was located in the right iliac region. The patient entered my hospital for the

purpose of going through an operation. For a while she remained to overcome a chronic constipation. She developed then signs that caused me to say we would probably find gall stones. So I simply made the incision a little further to the side and extended it up with a little increase in the obliquity, and removed an adherent and catarrhal appendix from the lower end of it, and removed a biliary calculus from the upper end of it, and she got well.

Just one other point. And I am glad that case was referred to because it brings us to another point. I must, Mr. Chairman, raise a protest against the undue continuance of medical treatment in obvious cases of gall stones. I do not believe all cases should be operated upon; but, sir, I have never had a fatality that mars my record, but it occurred from complications that developed during the prevalence of medicinal treatment. So while I concur that in a few cases we should give them some chance of recovery without operation, yet we should not let them run through months, because fatal cholemia may develop in a week. Such cases should not wait a long time, because you may then have an occlusion of the ducts; but on the standing of the sclerotic, particularly in the presence of a persistent tenderness in the hepatic region, operate.

Dr. A. W. Johnston:

Gentlemen:—I have always said no man is fit to be a surgeon until he is a good practitioner, and knows all a practitioner should know. There are two complicating diseases I have run across in my operative work, tuberculosis of the gall bladder and peri-hepatitis, both of which very closely simulate gall stone, and for which I have operated. A very large gall bladder, filled with purulent material and containing only one or two little stones, was stitched to the skin, and the patient made a nice recovery. In a year the man was dead, with all the symptoms of tuberculosis. On post-mortem examination I found masses of "chees" in the liver. The sinus had never closed and was sewed with tubercle from one end to the other. Another case was one which a good physician, in fact, sent to me to do a chole-cystotomy on last spring. I opened the abdomen fully expecting to find gall stone, but the gall bladder was about the only healthy thing in there. It was absolutely free and not distended. The woman had attack after attack of fever, and the only way I could account for it was that through dense masses of adhesions I felt the head of the pancreas, which seemed somewhat enlarged. I knew I could do nothing with it and left it alone. There was nothing but a peri-hepatitis, which runs its regular course, and whenever she went out and got a cold she would have an attack. Now there are other things, Mr. Chairman. I have had no less than two cases in the last few months diagnosed as gall stones which turned out to be cases of inter-menstrual pain. I found, by watching the time of the pain, it occurred at the close of the ninth and beginning of the tenth day. I watched it three or four months. It was an inter-menstrual pain which was mistaken for gall stone colic. The patient was a young woman who had paid little attention to herself. Another young woman was sent to me to do a chole-cystotomy on, but she did not give a good history for it. The attacks came on after the birth of her child, and she had had no such thing before her marriage. The pain was located about the end of the eleventh rib. She was sent to me from the Pacific coast, and I kept her for several weeks, hoping she would have one of these attacks, but would not come on. She had a decided metritis and the appendages were somewhat damaged, but not enough to justify their removal. I finally sent her to her relatives in the city and watched her for three or four months. I let her in the meantime go to New York, hoping to bring on an attack, but no attack occurred. Then her child had convulsions and came near dying, and soon afterwards she had an attack. When I arrived she said "I have that lump at last and I want to show it to you." I found an absolutely tympanitic mass of the colon.

She had damaged appendages, and

I found the attacks always came on, when I quizzed her closely, like an inter-menstrual pain.

Now, Mr. President, there is another point I wish to speak about. First and foremost, we must remember we are physicians, and make our diagnoses as quickly as possible. But Dr. Reed and Dr. Hall are right. Don't let the patient run down. We have the one little common-sense rule: When it is more dangerous to let the case run than to make an exploratory incesion, which I believe is one-third of one per cent., make the exploratory incision. This often seems to be just what is needed to start the case off right. It gave me the cue to the case I have just mentioned. I would always lean to the exploratory incision, and I think it is less dangerous to make an exploratory incision than to let a patient go on, jaundiced, week after week.

Now to come to gall stones themselves. I am glad Dr. Mitchell has brought these specimens to-night. The last one is nothing but inspissated bile. They are little fellows. One is nothing but dried bile, showing the patient had been on a spree or gotten the digestion a little upset, and the bile dried. The other, though, is a totally different thing. It is the kind that is capable of relief, if anything is, by medical treatment. And it puts us to the necessity of proving the negative when we say such treatment doesn't do any good. I have known men who had gall stone colic ten or fifteen years ago, and I have nursed them through attacks, and to-day they are perfectly comfortable. I would not think of operating upon them. The large specimen presented,which is crushed, is the same thing as the tartar on the teeth. The catarrh of the intestine simply extends up into the gall bladder, and there sets up a catarrhal cystitis, and you have the phosphatic deposit, and that I believe nothing on earth will do any good for but the knife. And if you tabulate the cases of operation, I believe you will find those are the cases which require operation. The cases of inspissated bile may slip out and do no harm.

A number of words of warning about waiting too long have been given. I will add one more. A man came to me and stated the case of his brother, who had attack after attack from gall stone, and wanted me to go down and operate upon him in the morning. I told him I would meet him at the first train in the morning. We could not go sooner. I told him, however, I thought his brother would be dead before we got there. A telegram came and turned me back with the information that he was dead. They sent me a box of stones, which had blocked the common duct. The common duct was plugged very tightly, and the other stones were driving these stones into it. We must remember that pain and cholemia are not the only things to dread in these cases.

In this, gentlemen, just like in every other disease, don't wait until you see the running down itself, but when you see the tendency is bad—and that may be measured by months or weeks or days or hours—remember a simple little exploratory incision is far safer than waiting and waiting and waiting until you have gone you hardly know where.

Dr. Johnston—While there are hundreds and thousands of persons possessors of gall-stones, who either do not present any symptoms of gall-stones or are harrassed with pain through a long period of years and die of other causes, there are a goodly number who die of biliary calculi. I know three or four patients who died from gall-stones. In one, a woman, some 50 years of age, whose trouble was diagnosed as cancer of the liver, there was found post-mortem about a pint of gall-stones. The next case, occurring in the first year of my practice, was a woman who was suddenly attacked with excruciating pain and died in a few hours. She simply died of pain in spite of the free use of morphia. The third was a patient who had suffered ten or fifteen years with gall-stones. At the time I saw her I advised an operation, and told her she might die from an attack in the following week, or live ten or fifteen years, and die of some other disease. Shortly afterward she had an attack and died.

It is sometimes very difficult to make a diagnosis, and even if you find stones passing in the stools you are never sure whether those stones are the last or not. If you should make an operation in such a case and find no stone, you would be in quite a predicament unless you inform the patient that the operation is primarily exploratory. It is somewhat difficult to tell what cases to operate upon. You must study each case that comes to you from every point. The case I reported suffered four years, and was 22 years of age. How much longer would this have gone on? Nobody knows. Would it have been right to have let her suffer every week or two from stones, when she could be relieved of a disease which might have lasted for years and years? I think in a case of that kind an operation should be done. Cases that have been icteric for only two or three weeks you can probably treat with some safety; but if they have been icteric for several years, it is almost impossible to do anything with them. Now, in diagnosing stones with the aspirating needle, you can see it would be almost impossible to strike a small gall-bladder in which there are but few stones. In the case I reported it would have been almost impossible to have struck the gall-bladder.

It seems to me if we have any remedy that will dissolve these stones in the body it ought to dissolve the stones out of the body. I have placed these stones in vials and put a great many chemicals on them and tried to dissolve them, but did not find anything that had solvent powers of any moment.

Dr. Mitchell—Did you try glycerin and olive oil?

Dr. Johnston—Yes, sir. The reason I made these experiments was to find out whether I could dissolve them, so that in case of stone in the common duct we might inject the remedy against the stone and probably dissolve it in situ instead of having to cut into the duct.

As it is impossible to dissolve these stones in the laboratory with drugs, which would not be deleterious if introduced into the human system, I think it is useless to administer drugs for their supposed solvent power on gall-stones.

Dr. Mitchell—The fact that none of these remedies may dissolve the stones out of the body, or perhaps in the duct, is not a proof the medicines will do no good. They may so modify the bile as to change the stones or force them out, and have some action aside from their soluble properties.

Dr. Reed—Is there any conclusive evidence that any remedies will dissolve such concretions?

Answer—No, sir.

Dr. Hall—Then, is not all treatment simply for the relief or palliation of the patient?

Answer—No, sir.

TENDON GRAFTING.

A New Operation for Deformities Following Infantile Paralysis, With Report of a Successful Case.

Surgeon-in-Chief of the New York Infirmary for Crippled Children; Surgeon to the Infants' and Children's Hospitals.

At the meeting of the New York State Medical Association, October 15, 1895 (Med. Rec., Oct. 26), Dr. Milliken presented a boy 11 years of age, upon whom, 20 months before, he had successfully grafted part of the extensor tendon of the great toe into the tendon of the tibialis anticus muscle, the latter having been paralyzed since the child was 18 months old.

The case which was presented showed the advantages of only taking part of the tendon of a healthy muscle, which was made to carry on the function of its paralyzed associate, without in any way interfering with its own work.

The brace, which had been worn since 2 years of age, was left off, the patient walked without a limp, the talipes valgus was entirely corrected and the boy had become quite an expert on roller skates.

Dr. Milliken predicts a great field for tendon grafting in these otherwise hopeless cases of infantile paralysis, who heretofore have been doomed to the wearing of braces all their lives.

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ACTION OF TEA ON THE DIGESTIVE ORGANS.

An interesting account is given in the Dublin Medical Journal for October of Dr. Peter M'Kechnie's experiments on the action of tea on the organs of digestion. The experiments were carried out partly in test tubes, partly in the stomach of a monkey, access to which was formed by a fistula.

The aliments experimented with consisted of egg-albumin and beef-fibre. Weighed quantities of each were used and were mixed with glycerol extract of pepsin and hydrochloric acid. To these mixtures a measured quantity of infusion of tea was added. The infusion of the tea occupied periods varying from five to twenty minutes. Six test tubes were used, a seventh being employed to test the action of the tea on meat-fibre alone. That process lasted 110 minutes before the meat-fibre was dissolved. Experiments with the tea infusion showed that the digestion of the mixture occupied 118.5 minutes. The time was not affected by difference of strength of the infusions of tea. Tea from which its tannic acid had been precipitated by means of gelatin was not more readily digested than ordinary tea.

In the case of the monkey, it was found that when the ingesta were altogether introduced through the mouth, digestion occupied five minutes longer than when the ingesta, except the tea, were introduced through the mouth and the tea by the fistulous opening into the stomach. From this it is to be inferred that the tea exerted an inhibitory influence on the salivary glands. The author is of opinion that it is not the tannic acid, but some of the more soluble constituents of tea which retard digestion.

The comparative values of different kind of teas were investigated. The Indian and Ceylon teas yielded the greater proportions of extract—i.e., made stronger infusions than the Chinese teas. Digestion took place more rapidly when the stronger infusions were used. The author believes that the larger proportion of caffein in the Ceylon and Indian teas as compared with the Chinese teas is the cause of the more easy digestion of the former, the caffein acting as a stimulant to the motor nerves, and increasing the flow of bile and stimulating peristaltic action.

Dr. M'Kechnie does not share the somewhat general belief that on the whole tea is not a wholesome beverage. I agree with this opinion. Since the general use of tea has been adopted in these countries, the state of public health has not deteriorated, but, on the contrary, has improved. Dr. E. Smith, in his work on "Health and Disease, Etc." (London: Walton

& Maberly, 1861), says of tea, that "it has both lessened the supply of nutriment and made better use of that which is supplied, and, hence, it has contributed most powerfully to the prevention of accumulations within the system, and the most perfect discharge of effete matter."

Dr. M'Kechnie deprecates the practice of infusing tea for more than five minutes, and states that by twenty minutes infusion the tea yields a much less wholesome beverage than if it were infused for a moderate time. As the tannin of tea being very soluble soon goes into solution, it would be interesting to determine the nature of the body or bodies which are dissolved out by long-continued digestion and which have a bitter flavor.

PRECEPTS FOR CYCLISTS.

Cycling seems to be quite as popular in France as it is with us, and yet there are medical authorities amongst our neighbors who condemn the practice because, in their opinion, it is liable to be attended by cardiac or circulatory troubles. It is true that in this country similar allegations have been made; but, so far as we are aware, the charge has never been seriously maintained, and no well-authenticated cases of disease arising from the use of the cycle have been placed on record. On the whole, it may safely be said that self-propulsion on two or three wheels is about as salutary a form of out-door exercise as could well be devised, provided always that the injurious and hideous bent posture affected by "scorchers" be rigorously condemned and avoided. It must not, however, be inferred from this ability on the part of the Anglo-Saxon race to indulge in cycling, with not only impunity but benefit, that the rule is likewise applicable to the members of other nationalities. All English schoolboys are accustomed to out-door sports of a more or less violent character from their earliest youth—cricket, football, tennis and other athletic games of various kinds are as much part and parcel of the curriculum in our schools nowadays as the Latin grammar, if not more so; and thus it comes to pass that very few adults arrive at maturity with their organs and muscles uninured to intermittent extra calls, in every shape and form, upon their powers of endurance. Our rising generation enters upon life physically prepared for any emergency, and, thanks to this early training, it is that cycling may be regarded as practically harmless, even though its votaries should postpone their initiation until comparatively late in life. Now, although in Great Britain there may be no medical objections to cycling when judiciously carried out, there are certain attendant circumstances involved in the practice abroad which demand consideration. Generally speaking, it may be said that in the matter of physical exercise the system of education usually adopted on the continent is totally different from ours. Sports and pastimes are but little encouraged in foreign lycees, and such as do exist are for the most part sedentary performances scarcely deserving to be classed as trials of strength and stamina. The youths consequently grow up unfitted to withstand the severe strain of cycling, and the circulatory apparatus is naturally the first portion of their economy to give way under the unwonted exertion. The foregoing remarks were suggested by some "precepts for cyclists" that have been drawn up by M. Rocheblanc for the benefit of his fellow-countrymen. It is not likely that, so far as the male sex is concerned, the recommendations will be adopted on this side of the channel, but their reproduction may be advantageous to the ladies who have taken up cycling with such marvelous energy. Girls do not serve the same apprenticeship to rough games that boys do, and, therefore, the French physician's warnings are more pertinent to their case. 1. No one should become an habitual cyclist without medical authorization. Before committing himself to an opinion the medical man consulted will do well to examine the beginner on dismounting from the machine as well as beforehand; there are certain car-

diac defects which only become recognizable when the subject is under the influence of excitement or fatigue. 2. A cyclist should at first be content with a moderate pace, not exceeding twelve kilometres per hour (about seven miles and a half). A higher rate of speed should only be indulged in after the rider has gone through a regular course of training. If a break in the practice occurs, lasting even a few days, the cyclist should recommence at the slower rate. 3. The temptation to go quickly must be controlled as far as possible. A bicycle travels well-nigh of its own accord, and it is very hard to resist the "delirium of speed." With a light machine on a good road, and helped ever so little by the breeze, an amateur, even when only half trained, can easily achieve his twenty-five kilometres within the hour (fifteen miles and a half). This is too much, seeing that when doing from fourteen to sixteen kilometres the rider's pulse rises to 150.—London Lancet.

Book Reviews.

TWENTIETH CENTURY PRACTICE. AN INTERNATIONAL ENCYCLOPEDIA OF MODERN MEDICAL SCIENCE. BY LEADING AUTHORITIES OF EUROPE AND AMERICA. EDITED BY THOMAS L. STEDMAN, M.D., NEW YORK CITY. IN TWENTY VOLUMES. VOLUME IV. DISEASES OF THE VASCULAR SYSTEM AND THYROID GLAND. NEW YORK: WILLIAM WOOD & COMPANY. 1895.

The subjects treated of in the fourth volume of this popular work are few in number, but of very great importance to the general practitioner, as well as of interest to the pathologist. The first article, to which somewhat more than half the volume is devoted, is on Diseases of the Heart and Pericardium. The fact that this is from the pen of Dr. James T. Whittaker, of Cincinnati, is a sufficient guarantee of its excellence. Of the four hundred and fifty pages given to the article, the diseases of the pericardium take about sixty, and the diseases of the heart itself, with its lining membrane, the balance. An interesting section is that on neuroses of the heart, to which some seventy pages are devoted. The section on valvular affections also deserves special mention.

Immediately following this article comes one on "Diseases of the Blood Vessels," by Dr. A. Ernest Sansom, of London, who is well known as an authority on these affections. This paper, of about one hundred pages, is followed by one on "Diseases of the Lymphatic Vessels," by Dr. Bertrand Dawson, also of London.

The closing article, and one of special contemporaneous interest, is by Dr. George Murray, of Newcastle-on-Tyne, on "Diseases of the Thyroid Gland, including myxedema, cretinism, exophthalmic goitre, and goitre, as well as inflammation and neoplasms. The editor's selection of Dr. Murray to present the subject of myxodema is peculiarly appropriate since it is to him that we owe the introduction of the thyroid-gland treatment, which has robbed this disease and its close relative, cretinism, of their terrors. Naturally, the author goes very fully into the history and mode of application of the thyroid treatment, taking up in their order the successive steps by which this triumph of therapeutic art has been reached. This is the first time, we understand, that the subject has ever been presented in systematic form, outside of journal articles, by the originator of the method. Some of the illustrations in this article, reproduced from photographs, showing the results of treatment, are very striking. Dr. Murray has an easy and pleasant style, and his account of this wonderful discovery is ably written.

This volume, in respect both to the importance of the subjects treated and the reputation of the authors, maintains the high standard of excellence set by those which have preceded it in the series.

TRANSLATIONS FROM

Foreign Exchanges

BY DRS. CHANDLER AND DAVIDOW.

THE FIRST HUNDRED CASES OF DIPHTHERIA TREATED WITH SERUM, IN THE MOSCOW CHILDREN'S HOSPITAL. PROFESSOR N. FLATOW, DES, P. KUSSOW AND NEWJESHIN.

In the Medicinskoje Obosrenje, 1895, No. 13, authors report a careful study of 100 cases of diphtheria treated with serum. Nineteen cases are recorded fatal. The mortality of the previous four years was 38.9, 36.4, 40.0 and 55.9 per cent.--or an average of 47 per cent. Conservatively speaking, the epidemic this year was not wild. In the 100 cases, 35 were of a severe type, with great infiltrations in the surrounding tissues, and 25 cases with laryngeal croup. The authors are very enthusiastic over the results; not only is the duration of the disease lessened, but the mortality itself is greatly reduced. Cases which, before the institution of the serum therapy, were considered fatal, as septic cases with great infiltration and edema of the neck, were saved by its treatment. Not a single case developed croup. The 25 cases with laryngeal croup were brought as such to the hospital. On the first indication of croup, if the serum be administered, no symptoms of stenosis will result. According to the authors, this is the main action of the serum.

In light and medium cases, on the first injection, the authors noticed an arrest of exudation into the mucous membrane. In severe forms of diphtheria the exudation continues for one day and then the process remains stationary.

From exact statistics given by Newjeshin, the commencement of clearing of the throat in mild cases was usually on the sixth or seventh day, in medium cases on the eighth or ninth, and in severe forms ten to eleven days. With the application of the serum the clearing commenced, even in severe forms, on the fourth or fifth day. In commencing croup the effect was prompt, the hoarseness and hollow cough disappeared fast. When tracheotomy was necessary, with the serum therapy, the healing process in the trachea was more rapid and the cannula much earlier withdrawn. In general the tone of the body also improves. Children, who, before the first injection, would lay apathetic, immediately upon the same become active and inquired after food, failing only in severe cases. In mild and medium cases the influence on the temperature and pulse could be noticed after 24 to 48 hours, when both would fall to normal, or even subnormal. Albuminuria, in accordance with the authors, was not as often, and at a later day in the course of the disease. They have been confronted with neither injurious nor dangerous consequences by the serum treatment. The skin eruptions, as urticaria, erythema, polymorphum or scarlatiniform, would generally disappear on the eighth day of the disease. In conclusion as to diphtheritic paralysis, the serum has no influence, nor any immunity from recurrence. A. D. D.

NEW LAWS OF INTEREST TO PHYSICIANS IN RUSSIA.

Foreigners, according to the latest decree of the Imperial Medical Board, will not be allowed to present themselves for the learned degree M. D., as it was heretofore. They will first have to pass the same rigid examination for "physician" as the natives, the degree of "Bachelor of Arts" being requisite in all cases. History of Medicine is the additional compulsory branch to the carriculum. To be a candidate for the degree of "M. D.," it is necessary, for all alike, to be at least for three years physician, pass an examination in all the preliminaries, and defend an original essay on any specialty, naming as such: (1) Anatomy; (2) histology; (3) physiology; (4) pharmacology; (5) pharmacy and pharmacognosy; (6) internal medicine; (7) nervous and psychical diseases; (8) venereal and skin; (9) surgery; (10) opthalmology; (11) obstetrics and gynecology; (12) pedi-

atrics; (13) hygiene; (14) legal medicine. This essay must be presented within five years after passing the secondary preliminary examination. Failing to do so after this expired time, a new secondary examination in the preliminaries will be required.

A law is proposed in the new session of the criminal code, making liable a physician who refuses to give his professional assistance to a man unconscious, or if requested by any one, representing the government, or if the physician knew of the severity of state of a patient he refused to treat. The punishment to be three months' arrest, and the Court, at its discretion, may publish the same in the press at the expense of the convicted. A. D. D.

ON THE USE OF GOOSE FEATHERS.

The goose feather is an article which may be put to many uses by the country practitioner, who finds himself only too often at a loss for some instrument that he has unfortunately left in the third left-hand drawer of his desk; said desk being usually anywhere from six to fifteen miles distant.

That the quills may be used for making swabs, as caustic holders and for covering the points of trocars are comparatively well-known facts, but it is now proposed to indicate a much broader field of usefulness for them.

Supposing the case of a country doctor called to a patient with paralysis of the bladder, this being distended until it reaches the umblicus and catheterization urgently indicated, while the physician has unfortunately left his pocket-case at home on the pork barrel.

The goose feather is now king. An eye is quickly cut in each end of the quill and we have a catheter ready for use. As to disinfection, Wolf says in his article in the "Zeitschrift fur aerztliche Landpraxis," that asepsis and not antisepsis is the order of the day, and that if a comparison as to cleanliness be made between a new feather and an old catheter, the chances would be largely in favor of the quill. Will one, however, not be willing to take any chances, then the quill should be thoroughly washed in soap suds and then energetically rubbed with moist sand. This treatment will render them more surely aseptic than immersion in a solution of carbolic acid. Have we the time necessary the feathers may be sterilized by boiling.

Should we be called to a patient whose condition indicates the necessity for a rectal douche, and we find that there is a rubber tube in the house that can be fitted to the funnel, but that such an article as a canula is as rare as the fifth card in a royal flush. Here the goose quill is again called into play and if an eye be cut in the side all danger of wounding the parts with the sharp edge is averted.

Is the tube too large, then fit in a cork with your quill passed through it. In obstetric work if there be necessity for the use of the midwife's irrigator, the innocent goose quill is to be preferred to the possibly infected vaginal nozzle. Aseptic measures as above.

In case of a sudden call to a patient suffering with severe nose-bleed that will not yield to any of the ordinary remedies, here our goose quill may be made to do the work of a Bellocq's canula.

For this purpose the feathers are cut away on both sides of the shaft, which is then shortened somewhat, its sharp edges smoothed, and its end, protected by a small ball of wax. Now a nick is made in the shaft about one cm. from the end, so as to prevent the thread from slipping off. The feather is then passed shaft end foremost through the nose and the tampon fastened to the thread in the same way as with Bellocq's instrument.

In the case of a patient with a fish bone in his thoat, it is recommended to pass the feather end of the quill down and then to turn it around a few times, when the bone will usually be dislodged and removed on withdrawal.

To make a swab for use in the throat, etc., the following method is worthy of trial. Cut off the tip of

the quill. About one cm. back of this cut an eye and push absorbent cotton through this until it stands out in a ball at opening in the tip. Our swab is then ready, but the cotton must be thrown away and the feather sterilized after each application of treatment be continued.

In some affections of the eye and ear, the goose quill has a sphere of usefulness. For dusting powders into the eye a camel's hair brush is generally used, but its proper use requires a certain knack, which is too often wanting in the patient's friends. Here we may try the following method. Take a red-hot darning needle and burn a hole in the tip of the quill end of the feather, then around and close to this hole burn four others, with their openings directed forwards. Now cut off the quill and shovel up with the large end a small quantity of the powder to be used—calomel, iodoform, dermatol and the like—and shake it into the small end of our instrument, whence it may simply be blown into the eye. (In connection with this method it might perhaps be of use to ascertain whether or no the blower-boy has mucous patches concealed anywhere on his persons.)

A quill fixed in the same way may naturally be used for blowing boric acid or other substances into the ears, throat or nose.

The simplest and cheapest medicine dropper is a goose feather quill, the flow of liquid being regulated by the index finger over the large opening. For removing foreign bodies from the eye, a feather, cut either pointed or hollow, may be advantageously employed. An ear spoon may be made from any quill, and a nail cleaner is in the same piece. A pleasant way of inhaling oil of turpentine, or the like, is to put a few dops on absorbent cotton and pushing this into a quill to use it like a cigarette.

By cutting only the extreme tip of a quill we can make an excellent comedone key.

To make a practical iodoform, salol, etc., shaker, put a cork with a quill comedon key passed through it into the bottle. A handy little pocket powder shaker may be made by taking a long feather, cutting it off at the shaft so that the lower end remains closed, then cutting the tips off, filling the quill with the powder and putting on a new tip from another feather.

A slender dove's feather may be used as a sound. Cutting a thin goose feather in two equal parts gives us two directors that would be of great help in a pinch. By cutting the point of a quill we may easily make a very useful, small sharp curette.

Finally, instead of the glass rod we may use a quill for putting corrosive liquids on warts.

To how many uses now can the country practitioner put this little insignificant goose feather, and this is but one of the many things to be found in almost every household. Improvising is a fine art in medicine as well as in music and should be carefully and systematically studied.—Zeitschr. f. Krankenpflege.

The translator was once present at a lecture on fractures given by a prominent professor in Leipsic and, when the green-stick variety had been described at length, our professor stopped short and commenced looking for some object that evidently had been misplaced. Soon giving up his search, he apologized to the class and said that he had intended to have a cane there with which to demonstrate more fully this variety of break. Just then a young American physician from Cincinnati, who was sitting down front, handed him a common sulphur watch broken half through. A great light pierced the professor's brain and the lecture went on.

Gumption is an almost essentially American characteristic and when a foreigner does strike a brilliant idea the world must know it. This translation of a cutting taken many years ago from a Munich paper is a case in point:

"NEARLY A SERIOUS ACCIDENT.

"Yesterday afternoon Frau G., who lives in the Bamberger Hof, was ob-

liged to leave her 18-months' old child alone for a few moments, and on returning found it in convulsions.

"Dr. N., who was called in haste, found that the child had endeavored to swallow a large lump of sugar which could not pass. After several ineffectual attempts at extraction, Dr. N. asked the mother if she had any warm milk. This was then administered and the baby immediately recovered, and commenced laughing with pleasure as the sweetened fluid glided down his thoat, etc., etc."

AFTER THE FACULTY MEETING!

Prof. F. Log.—"I saw a rather odd case to-day, a lady brought her little girl to me for vaccination and said that she had already been vaccinated eight times without taking.

Prof. T.—"That is rather odd; but you all know X? Well, he has assured me that he was vaccinated five times and baptized twice without anything taking."

CHANDLER.

Therapeutics.

IN CHARGE OF

DR. LOUIS LEWIS, Philadelphia.

BORAX IN EPILEPSY.

Fere (Rev. de Med., September, 1895) reports the results of the treatment of 122 cases of epilepsy by borax. The drug was given in large doses (2 g., rising gradually to as much as 20 g. a day), and in some cases for many months. In about two-thirds of the cases (71.31 per cent.) the treatment had no effect. In about a fifth (19.67 per cent.) some doubtful or temporary improvement was noticed, less than the benefit derived from bromides. In the remainder (9.01 per cent.) the improvement was marked, though the duration of the observations was too short to permit it to be stated that the improvement was permanent. The great drawback to the use of the drug is the frequency with which its continued use in large doses produces toxic symptoms. To this subject Fere devotes the greater part of his paper. The earliest as well as the most frequent symptoms are due to derangement of the alimentary tract. Nausea and vomiting, preceded, as a rule, for a few days by loss of appetite, and heaviness and burning in the pit of the stomach. In some cases these symptoms may be diminished or removed by administering intestinal antiseptics, or by giving the borax dissolved in glycerine instead of water. Extreme dryness of the skin with suppression of the fatty secretion, as well as dryness of the mucous membranes, may also be produced by the large doses of borax requisite in the treatment of epilepsy. The hair also is affected; it becomes dry, and may fall out, producing complete baldness. Various lesions of the skin may be produced by borax, among others (1) psoriasis in persons predisposed to that affection. The most common affection is a form of (2) eczema resembling seborrheic eczema. The affection begins as papules or circles with red squamous borders, which first appear generally on the lower part of the trunk or abdomen and on the upper limbs, in, that is to say, parts of the body where the sebaceous secretion is most scanty. Fine branny desquamation of the hairy scalp, with or without loss of hair, may accompany the appearance of a form of the skin affection to which the term seborrheic acne is applied. These skin affections disappear when the administration of borax is suspended, and may be kept under during its use by giving intestinal antiseptics or by resort to local treatment by oxide of zinc, sulphur or salicylic acid. Other less common affections of the skin are (3) the appearance of red plaques which may be confluent and very extensive, may present resemblances to the rash of measles or scarlet fever, and may be followed by desquamation. (4) A papular eruption, accompanied by pruritus, and followed sometimes by desquamation. The continued administration of borax produces in some cases a cachectic state, characterized by wasting, a waxy tint of the skin, discoloration of the mucous membranes, puffiness of the face, and sometimes general

edema. In a certain proportion of the cases of edema there is albuminuria, and in such cases uremia may develop with great rapidity. Borax appears in the urine in health half an hour after ingestion, and may continue to be excreted by the kidneys for weeks after the suspension of treatment. On the whole, Fere concludes that borax is more efficacious than the bromides in a small proportion of cases of epilepsy, and that, therefore, it should be tried when the bromides fail. It must be regarded, however, as a dangerous remedy owing to its power of producing or aggravating lesions of the kidneys even when given in small doses.

A NEW USE FOR THYROID EXTRACT.

J. W. White (Univ. Med. Mag., August) reports the following case: In March, 1894, a young girl, who was dressing in front of a mirror in a private carriage attached to a train, was thrown violently forward, her face striking the mirror, which was broken into many pieces. A large crescentic wound of the soft parts of the right cheek was inflicted. The wound was quickly cleansed and the edges brought carefully into position with interrupted sutures. Rapid union, entirely by first intention, followed, and the scar appeared satisfactory. In the following October it had become greatly hypertrophied and caused great disfigurement. Absorbent ointments, pressure by means of plaster, and other means of local treatment having been tried to no purpose, she was (in January, 1895) put upon thyroid extract, from two to four tablets of "a well-known preparation"—each tablet containing 5 grains—being given daily. All local treatment was discontinued, the scar being only covered with a film of collodion to prevent abrasion or irritation and to keep up gentle pressure. On several occasions marked elevation of temperature and quickening of pulse occurred, once to an alarming extent, but in a few weeks a perceptible change was noted, and at the end of about six weeks the scar had in almost its entire extent come down to the level of the surrounding skin and the dense base had disappeared. White does not claim that this was a case of true keloid, but he points out that the clinical distinction between keloid growths and hypertrophied cicatrices is, after all, based on the size of the growth and on its course than upon any more definite differences. He reports the case "for the sake of the suggestion to which its leads up of the trial of thyroid extract in other conditions involving the skin, intractable to operative surgery, and either on the border line of malignancy, like keloid, or definitely malignant."

Gynecology and Obstetrics.

HYPEREMESIS GRAVIDARUM; DIFFICULTY IN INDUCING ABORTION.

Charpentier (Reper. Univ. d'Obstet. et de Gynec., August 25, 1895) observed uncontrollable vomiting, from the beginning of pregnancy, in a secundipara, aged 28. At the third month the state of the patient was so grave that it was necessary to provoke abortion. A rubber bougie was passed into the uterus, and another on the following day, then a dilating bag, then Hegar's dilators from the smallest to the largest. Lastly, nitrate of silver was applied to the uterine cavity. The ovum remained unexpelled. These proceedings took five days. The patient was ultimately put under chloroform, and the ovum was detached by the finger. The patient recovered. She was hysterical, and Charpentier believes that hysteria is often the cause of uncontrollable vomiting in pregnancy.

MENSTRUATION AND OVULATION INDEPENDENT.

Byron Robinson (Amer. Gynec. and Obstet. Jour., August, 1895), in a discussion on menstruation, noted that all evidence favors the theory that ovulation and menstruation are independent. Ovulation, he remarked, occurs before birth in man and other

animals. Women menstruate who possess ovaries totally incapable of ovulating from disease. Menstruation frequently continues after removal of the ovaries, and is not required for the ripening and discharge of ovules. The sow seems to ovulate continually and progressively, but the ova ripen in greatest number at rut or estrus. Robinson believes that sufficient evidence exists to show that no follicle ruptures at many of the menstrual rhythms. Women who do not menstruate can become pregnant. If ovulation and menstruation occurred together coitus between healthy subjects just after the period would far more frequently be followed by pregnancy. Lastly, ovulation, in a modified form, continues during pregnancy.

THE MATERNAL IMPRESSION THEORY.

Hartmann (Munch. Med. Woch., 1895, No. 9) describes the birth and anatomical structure of a double monster (cephalothora copagus), and notes that the mother was alarmed, when pregnant, by seeing in a forest a new-born fawn showing a similar monstrosity. She considered that that adventure was the cause of the malformations in her child, and Hartmann seems inclined to support her opinion.

Medicine.

IN CHARGE OF
DR. E. W. BING, Chester, Pa.

DIABETES.

Worms (Bull. de l'Acad. de Med., July 23), as the result of researches reported in a previous communication to the Academy in December, 1893, came to the conclusion that in persons engaged in brain work and leading a sedentary life the proportion of glycosurics was 7 per cent. This conclusion he arrived at by examining the urine of 100 such persons, taken more or less at random. Further examinations of the same series of patients have raised the proportion of diabetics to 10 per cent., which he gives as representing the average frequency of the condition in any series of 100 scientists, artists, business men, doctors, lawyers, etc., between 40 and 60 years of age. Bertillon's statistics have shown that diabetes is on the increase, the mortality from diabetes in Paris having almost doubled between 1883 and 1892. All the cases discovered by Worms in his investigations are examples of the milder type of diabetes, in which the glycosuria can be controlled by diet; the patients have no particular symptoms, and with proper care may live almost indefinitely. As to the relative frequency of mild diabetes compared with the grave form of the disease, Worms quotes his own observations during the last thirty years. From 1863 to 1889 he had 41 cases under observation. In 1889 only three of these cases (one being in a child) had died within two years of the discovery of the condition, giving a percentage of 7 per cent. of serious cases. Of the rest 22 still survive, among them being an old lady, aged 83, whom the author has had under observation for thirty-three years, and in whose urine he has found no sugar for the last two years, her health in other respects being excellent. He is inclined to think that the proportion of grave to mild cases of diabetes does not exceed 5 per cent. With regard to the question whether mere glycosuria is likely to pass into diabetes with cachexia unless care be taken, Worms is not prepared to give a decided opinion, but he thinks that too much importance should not be attached to moderate glycosuria, even persistent, which is not accompanied by appreciable organic deterioration. He points out that even in those glycosurics who follow a fixed treatment and live always under the same conditions, the quantity of sugar varies within wide limits, great increase taking place under the stress of moral impressions or physical exertion. He cites many instances in his own practice in which diet and methodical treatment keep the quantity of sugar low or cause it to disappear for long periods, sometimes for years, even when the patient has returned to ordinary diet. It would, however,

be rash to predicate cure in any given case, Worms having often seen glycosuria recur after long periods of absence of sugar. As regards treatment, he says that diet must be the foundation of any system of therapeusis, but it should be rigidly adhered to only at the outset, when the degree of reducibility of the sugar in the individual case is being tested; if kept up too long it does harm and predisposes to coma. In the way of medication he believes most in quinine. Treatment, he adds, succeeds best in patients who are not anxious about their condition, which is always aggravated by worry.

NEW TREATMENT FOR TAPEWORM.

Dr. I. H. Newington reports in the Lancet a very successful treatment for tapeworm, which was revealed to him in prescribing for another trouble. A patient for whom he had prescribed a mixture composed of hydriodate of potass., gr. 36; iodine, gr. 12; water one ounce, ten drops three times a day in water, unexpectedly passed a dead tapeworm eleven yards long, of which there were no previous symptoms. The remedy has proved successful in three other cases, the last confirming in a marked manner the specific action of the combination. The remedy was given to a patient who had suffered for two years with a tapeworm, constantly passing pieces of the parasite, but failing with any treatment to get rid of the entire parasite. A short time after using the new remedy he passed a mass of dead tapeworm, and for a year there has been no return.—New York Med. Times.

Miscellany

THE MOVEMENTS OF THE FONTANELLE.

Hutchison and Elder (Edin. Hosp. Repts. III, 268) have obtained a number of tracings of the pulsation of the anterior fontanelle in young children. They exhibit a double pulsation, arterial and respiratory. The arterial pulse is almost invariably anacrotic, in which respect it corresponds with the tracing from a limb, or any considerable part of the body taken as a whole. The whole fontanelle is depressed with inspiration and bulged with expiration, owing in all probability to a suction of the venous blood out of the cranium during inspiration, and a damming of it back during expiration. Under pathological conditions the lowering of pressure during inspiration may be great enough to affect cerebral activity. During sleep the mean intracranial pressure is low, the arterial waves are small, the respiratory undulations well marked. Chloroform produces similar effects. The fontanelle is more tense, the arterial waves lower, and their summits more rounded than in the vertical. Movements evidently cause a marked increase in intracranial pressure, and this is particularly marked when the child cries.

HYDATIDIFORM MOLE AND MALIGNANT DECIDUOMA.

Fraenkel (Archiv. f. Gynak., vol. xlix., Pt. 3, 1895) has recently added to our knowledge respecting the malignant changes which sometimes take place in the uterus after gestation. Undoubtedly malignant decid uoma is often, on clinical evidence, associated with hydatidiform mole. Small portions of a mole of this class usually remain behind after the greater part has been expelled. The superficial epithelial layer (syncytium) of the chorionic villi proliferates considerably when a vesicular mole develops. It is precisely from this abnormal development of epithelium that the cancerous change known as malignant deciduoma is evolved. The deeper cellular investment of the chorionic villus (Langhan's layer), according to Fraenkel, takes no primary part in the development either of the mole or of the cancer.

PLACENTAL CIRCULATION AND MORPHINOMANIA.

Bureau (Report. Universal d'Obstet. et de Gynec., August 25, 1895) attended a patient who had taken

morphine for seven years, and who when he saw her took as much as 15 grains of that alkaloid daily. She was pregnant for the fourth time. At length she was spontaneously delivered of a child with talipes of one foot. As the cord was divided Bureau collected the blood of the placenta and umbilical vessels. On chemical analysis morphine was detected in the blood.

THE HYGIENE OF THE NURSERY.

Regular habits, proper food, and long hours of sleep are necessary conditions to a healthy infant.

The three prime essentials in the nursery are fresh air, good food, and pure water.

Never put a bottle nipple into your mouth, and then into the baby's mouth; this will often prove dangerous.

Always hold a baby in your arms when feeding it, in about the same position as if nursing it.

Feeding at night, after the third month, is both inconvenient and unnecessary; sleep at night is better than food.

Do not feed the baby because it cries; this may be due to pain, and it is hurtful to fill an infant's stomach at such a time.

Have a rule for feeding the baby and do not vary from it; without regularity the mother becomes a slave.

More infants' lives are taken by overfeeding than by starvation. Never liken an infant's digestion or diet to your own.

An infant's thirst is not quenched by milk; it needs clean water to drink with regularity.

Plain boiled water, given between feedings, will often aid the digestion and satisfy the child when restless.

Vomiting and diarrhea are indications that the child is either sick or approaching sickness, and probably needs a physician.

Cholera infantum would be of rare occurrence if proper attention was always given to the quality and quantity of the food.

A nursing mother who worries, or who is exhausted, or who indulges in excitement, may become a source of danger to her infant.

An infant is a creature of habit, and usually responds to the wish of the mother, if the mother has order in her will.

Rubber tubes, complicated nipples, and nursing bottles are dangerous and should never be used.

Light and loose clothing, frequent bathing, or cool sponging are necessities for the infant in hot weather.

Cleanliness, as applied to the body, the mouth, the food, the vessels, the clothing, the furniture, the floor, the carpets, the beds, and the atmosphere should be strictly observed.—Atlanta Med. and Surg. Journal.

EPIDEMIC CEREBRO—SPINAL MENINGITIS.

Righi (Rif. Med., June 24 and 25, 1895) reports three cases of this disease in which he found the diplococcus of Fraenkel in the blood, the urine, and in one of the cases in the feces. In each case the diplococcus was actively virulent and gave rise to cultures which proved active upon inoculation. The cases occurred in children of 16, 3 and 13 years respectively, and formed part of an epidemic of the disease which occurred in Sassari. The first two patients died; the third, which was a milder case, recovered. But even in this case the diplococci were freely found in the blood and urine, so that it cannot be said that the diplococci are only associated with severe cases.—Quadu (Rif. Med., July 8 and 9, 1895) reports another case (one of the same epidemic) in a child aged 6, who recovered, and in whose blood the same diplococcus was found. This case was also interesting from the fact that it was complicated by the development during the disease of a periarticular abscess about the left knee-joint and by a left otitis media with perforation. In each case the pus contained the diplococcus, that of the ear also containing the staphylococcus cereus albus and a slender somewhat recurved unfamiliar bacillus. In addition to the otitis and abscess the patient also suffered from arthritis of the right shoulder-joint.